

Title (en)

System and method for reducing combustion dynamics in a combustor

Title (de)

System und Verfahren zur Verringerung der Verbrennungsdynamik in einer Turbomaschine

Title (fr)

Système et procédé permettant pour réduire la dynamique de combustion dans une chambre de combustion

Publication

EP 2634487 A3 20150826 (EN)

Application

EP 12197451 A 20121217

Priority

US 201213409326 A 20120301

Abstract (en)

[origin: EP2634487A2] A system for reducing combustion dynamics in a combustor includes an end cap (28) having an upstream surface axially separated from a downstream surface (44), and tube bundles (24) extend through the end cap (28). A diluent supply in fluid communication with the end cap (28) provides diluent flow to the end cap (28). Diluent distributors (32) circumferentially arranged inside at least one tube bundle (24) extend downstream from the downstream surface (44) and provide fluid communication for the diluent flow through the end cap (28). A method for reducing combustion dynamics in a combustor (10) includes flowing fuel through tube bundles (24) that extend axially through an end cap (28), flowing a diluent through diluent distributors (32) into a combustion chamber (28), wherein the diluent distributors (32) are circumferentially arranged inside at least one tube bundle (24) and each diluent distributor (32) extends downstream from the end cap (28), and forming a diluent barrier in the combustion chamber (28) between at least one pair of adjacent tube bundles (24).

IPC 8 full level

F23R 3/28 (2006.01)

CPC (source: EP US)

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Citation (search report)

- [E] EP 2587157 A2 20130501 - GEN ELECTRIC [US]
- [E] EP 2587159 A2 20130501 - GEN ELECTRIC [US]
- [X] US 2012006033 A1 20120112 - KIM KWANWOO [US], et al
- [A] US 5235814 A 19930817 - LEONARD GARY L [US]

Cited by

FR3071554A1; EP3076077A4; US10570820B2; WO2019063935A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2634487 A2 20130904; **EP 2634487 A3 20150826**; CN 103292352 A 20130911; JP 2013181745 A 20130912; RU 2012158324 A 20140710; US 2013227955 A1 20130905; US 8511086 B1 20130820

DOCDB simple family (application)

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